

# $\Delta(\sim 3000 \text{ Region})$ Partial-Wave Analyses

## OMITTED FROM SUMMARY TABLE

We list here miscellaneous high-mass candidates for isospin-3/2 resonances found in partial-wave analyses.

Our 1982 edition also had a  $\Delta(2850)$  and a  $\Delta(3230)$ . The evidence for them was deduced from total cross-section and  $180^\circ$  elastic cross-section measurements. The  $\Delta(2850)$  has been resolved into the  $\Delta(2750) I_{3,13}$  and  $\Delta(2950) K_{3,15}$ . The  $\Delta(3230)$  is perhaps related to the  $K_{3,13}$  of HENDRY 78 and to the  $L_{3,17}$  of KOCH 80.

NODE=B127

NODE=B127

## $\Delta(\sim 3000)$ BREIT-WIGNER MASS

NODE=B127M

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b><math>\approx 3000</math> OUR ESTIMATE</b>			
3300	<sup>1</sup> KOCH	80	IPWA $\pi N \rightarrow \pi N L_{3,17}$ wave
3500	<sup>1</sup> KOCH	80	IPWA $\pi N \rightarrow \pi N M_{3,19}$ wave
2850±150	HENDRY	78	MPWA $\pi N \rightarrow \pi N I_{3,11}$ wave
3200±200	HENDRY	78	MPWA $\pi N \rightarrow \pi N K_{3,13}$ wave
3300±200	HENDRY	78	MPWA $\pi N \rightarrow \pi N L_{3,17}$ wave
3700±200	HENDRY	78	MPWA $\pi N \rightarrow \pi N M_{3,19}$ wave
4100±300	HENDRY	78	MPWA $\pi N \rightarrow \pi N N_{3,21}$ wave

NODE=B127M

→ UNCHECKED ←

OCCUR=2

OCCUR=2

OCCUR=3

OCCUR=4

OCCUR=5

## $\Delta(\sim 3000)$ BREIT-WIGNER WIDTH

NODE=B127W

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
700±200	HENDRY	78	MPWA $\pi N \rightarrow \pi N I_{3,11}$ wave
1000±300	HENDRY	78	MPWA $\pi N \rightarrow \pi N K_{3,13}$ wave
1100±300	HENDRY	78	MPWA $\pi N \rightarrow \pi N L_{3,17}$ wave
1300±400	HENDRY	78	MPWA $\pi N \rightarrow \pi N M_{3,19}$ wave
1600±500	HENDRY	78	MPWA $\pi N \rightarrow \pi N N_{3,21}$ wave

NODE=B127W

OCCUR=2

OCCUR=3

OCCUR=4

OCCUR=5

## $\Delta(\sim 3000)$ DECAY MODES

NODE=B127215;NODE=B127

Mode
$\Gamma_1 \quad N\pi$

DESIG=1

## $\Delta(\sim 3000)$ BRANCHING RATIOS

NODE=B127220

$\Gamma(N\pi)/\Gamma_{\text{total}}$	DOCUMENT ID	TECN	COMMENT	$\Gamma_1/\Gamma$
6±2	HENDRY	78	MPWA $\pi N \rightarrow \pi N I_{3,11}$ wave	
5±2	HENDRY	78	MPWA $\pi N \rightarrow \pi N K_{3,13}$ wave	
3±1	HENDRY	78	MPWA $\pi N \rightarrow \pi N L_{3,17}$ wave	
3±1	HENDRY	78	MPWA $\pi N \rightarrow \pi N M_{3,19}$ wave	
2±1	HENDRY	78	MPWA $\pi N \rightarrow \pi N N_{3,21}$ wave	

NODE=B127R1

NODE=B127R1

OCCUR=2

OCCUR=3

OCCUR=4

OCCUR=5

## $\Delta(\sim 3000)$ FOOTNOTES

NODE=B127

<sup>1</sup> In addition, KOCH 80 reports some evidence for an  $S_{31} \Delta(2700)$  and a  $P_{33} \Delta(2800)$ .

NODE=B127;LINKAGE=K

## $\Delta(\sim 3000)$ REFERENCES

NODE=B127

KOCH	80	Toronto Conf. 3	R. Koch	(KARLT) IJP
HENDRY	78	PRL 41 222	A.W. Hendry	(IND, LBL) IJP
Also		ANP 136 1	A.W. Hendry	(IND)

REFID=30859

REFID=30893

REFID=30901